Electrocardiography

Fifth Edition

ELECTROCARDIOGRAPHY FOR HEALTHCARE PROFESSIONALS

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Chapter 1 ELECTROCARDIOGRAPHY

Learning Outcome		PowerPoint	Instructor's Manual	Test Bank Questions				Chapter Review			
		Slides	Pages	All Questions	Bloom's			Chapter Review (questions)	Critical Thinking Application (questions)	Check Point (questions)	"Competency Checklists (procedures)
					Remember	Understand	Apply				
Chapter 01		1-57	1-7	1-71				1-36			
LO 1.1	Describe the history and importance of the ECG.	3-9	1; 4-5	1-5; 36-38; 56	1-5; 36-37; 56	38		1-3; 5; 9; 15		1-2	
LO 1.2	Identify the uses of an ECG and opportunities for an electrocardiographer.	10-22	1; 4-6	6-12; 22-25; 28; 57; 65-66	9; 22-24; 28	6-8; 10-12; 25; 57; 65-66		6-7; 12; 16-20; 23		1-2	
LO 1.3	Troubleshoot legal, ethical, patient education, and communication issues related to the ECG.	23-35	1; 4; 6-7	12; 14-21; 26-27; 30-32; 58-59; 67-70	16; 20; 32	12; 14-15; 17-19; 21; 26-27; 30-31; 58-59; 67-70		11; 22; 24; 27	33-36	1	
LO 1.4	Perform infection control measures required for the ECG.	36-43	1-2; 5-6	13; 29; 33-35; 38-41; 60-63	33; 60-63	13; 29; 38-41	34-35	4; 8; 10; 26; 32		1-2	
LO 1.5	Compare basic vital sign measurement related to the ECG.	44-54	1-2; 5-6	42-45; 64; 71	42-44; 47-50; 55; 64	45-46; 51; 53-54; 71	52	13-14; 21; 25; 28-31		1-2	1-1 Measuring Pulse and Respirations 1-2 Measuring Adult Blood Pressure

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SmartBook/LearnSmart		Question Bank		Strip Exercises	Test Bank
"SmartBook/ LearnSmart"	Video Evaluations	Questions	Interactives	Interactives	Questions
		31 questions		3 interactives	71 questions
LO 1.1		6-7; 16	Matching: Key Term Matching		1-5; 36-38; 56
LO 1.2		8-10; 15; 17-20; 22	Matching: Key Term Matching Paragraph: How ECGs are	Types and Uses of Electrocardiography [Version a] Types and Uses of Electrocardiography [Version b] Types and Uses of Electrocardiography [Version c]	6-12; 22-25; 28; 57; 65-66
LO 1.3		12-14; 21; 23-28	Paragraph: What You Need to Know to Perform an ECG Paragraph: Troubleshooting Sequencing: Troubleshooting		12; 14-21; 26-27; 30-32; 58-59; 67-70
LO 1.4		11; 29-31	Paragraph: What You Need Know to Perform an ECG		13; 29; 33-35; 38-41; 60-63
LO 1.5					42-45; 64; 71

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Chapter 2 THE CARDIOVASCULAR SYSTEM

Learning Outcome		PowerPoint	Instructor's Manual	Test Bank Questions				Chapter Review			
		Slides	Pages	All Questions	Bloom's			Chapter Review (questions)	Critical Thinking Application (questions)	Check Point (questions)	"Competency Checklists (procedures)
					Remember	Understand	Apply				
Chapter 02		1-85	1-9	1-80				1-36			
LO 2.1	Explain how circulation occurs in relation to the ECG.	4-7	1; 4	2; 40-41	2; 40	41		1-10		1-2	
LO 2.2	Recall the structures of the heart including valves, chambers, and vessels.	8-21	1; 4-7; 9	3-16; 18-19; 46; 75	3-16; 18-19	75		28-29; 31; 36; 39; 43		1-2	
LO 2.3	Differentiate among pulmonary, systemic, and coronary circulation.	22-32	1; 4; 6; 9	17; 20-22; 42-48	17; 20-22; 45-46	42-44; 48	47	34-35; 38; 40; 44		1-3	
LO 2.4	Explain the cardiac cycle including the difference between systole and diastole.	33-39	1; 4; 6; 9	23-26; 49-51	23-26; 50	49; 51		32-33; 37; 43		1-2	
LO 2.5	Describe the structure and function of the heart and conduction system and how they relate to the ECG.	40-54	1; 4-6; 8-9	27-36; 52-56	27-36; 52; 54-56	53		11-20; 26-27; 30; 41; 43	45-46	1-3	
LO 2.6	Describe the heart activity that produces each part of the ECG waveform.	55-72	1; 2; 5-6; 8-9	1; 37-39; 57-80	1; 37-39; 60-62; 67; 76-80	57-59; 63-66; 68-69; 72-74	70-71	21-25; 42; 43		1-3	

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SmartBook/LearnSmart		Question Bank		Strip Exercises	Test Bank
"SmartBook/ LearnSmart"	Video Evaluations	Questions	Interactives	Interactives	Questions
		53 questions			80 questions
LO 2.1		18-19	Paragraph: Circulation and the ECG		
LO 2.2		20; 45	Matching I: Match the Valves, Vessels, and Chambers Labeling: Label the Parts Classification: Anatomy of the Heart Labeling: Anatomy of the Heart Paragraph: Anatomy of the Heart		3-16; 18-19; 46; 75
LO 2.3		21-23; 47-51	Matching III: Match the Information about Circulation Labeling: Label the Diagram of Blood Flow Classification: Principles of Circulation Paragraph: Principles of Circulation		17; 20-22; 42-48
LO 2.4	Cardiac Cycle	24-25	Matching III: Match the Information about Circulation Labeling: The Cardiac Cycle Paragraph: The Cardiac Cycle Animation: Cardiac Cycle		23-26; 49-51
LO 2.5		26-27; 43-44; 46; 52	Matching II: Match the Conduction System Parts Labeling: Conduction System of the Heart Paragraph: Conduction System of the Heart		27-36; 52-56
LO 2.6		28; 39-42; 53	Classification: Electrical Stimulation and the ECG Waveform Paragraph: Electrical Stimulation and the ECG Waveform		1; 37-39; 57-80

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Chapter 3 THE ELECTROCARDIOGRAPH

Learning Outcome		PowerPoint	Instructor's Manual	Test Bank Questions				Chapter Review			
		Slides	Pages	All Questions	Bloom's			Chapter Review (questions)	Critical Thinking Application (questions)	Check Point (questions)	"Competency Checklists (procedures)
					Remember	Understand	Apply				
Chapter 03		1-66	1-12	1-55				1-55			
LO 3.1	Explain the three types of leads and how each is recorded.	3-18	1; 5; 7-8; 12	1-10; 36	1-10	36		1-12; 17; 27; 31; 35-36; 40-44	54	1-3	
LO 3.2	Identify the functions of common ECG machines.	19-27	1; 5; 7	11-12; 32-34; 39-41	11-12; 32-34; 40--41	39		13; 18; 21; 24-25; 29		1-2	
LO 3.3	Explain how each ECG machine control is used.	28-37	1; 5; 7-8; 12	13-16; 35; 37-38; 42-44	13-14; 43	15-16; 35; 37-38; 42; 44		14-16; 23; 28; 30; 32-33	55	1-2	
LO 3.4	Recognize common electrodes.	38-41	1; 6-7; 12	17-18; 45-47	17-18; 45	46	47	22; 26; 34; 37-39; 45	53	1	
LO 3.5	Describe the ECG graph paper.	42-48	1; 6-9; 12	19; 48	48	19	20	19-20; 45	52	1-2	
LO 3.6	Calculate heart rates using an ECG tracing.	49-58	1-2; 6; 9-10	20-31; 49-55	29	21-24; 26-27; 31	20; 25; 28; 30; 49-55	46-51		1-2	

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SmartBook/LearnSmart		Question Bank		Strip Exercises	Test Bank
"SmartBook/ LearnSmart"	Video Evaluations	Questions	Interactives	Interactives	Questions
		41 questions			55 questions
LO 3.1		18-19; 31; 37; 40	Matching I: Match the ECG Lead Names with Their Types Labeling: Label the Lead Tracings in the Einthoven Triangle Paragraph: Producing the ECG Waveform		1-10; 36
LO 3.2		21-22; 28-29; 33; 35	Matching II: Key Term Matching Paragraph: ECG Machines		11-12; 32-34; 39-41
LO 3.3		20; 23; 25; 32; 34; 36; 41	Paragraph: Controls		13-16; 35; 37-38; 42-44
LO 3.4	Cardiac Cycle	24; 30; 39	Paragraph: Electrodes		17-18; 45-47
LO 3.5		26; 38	Labeling: Label the ECG Tracing Measurements Paragraph: ECG Graph Paper		19; 48
LO 3.6		27	Matching III: Match the Times on an ECG Tracing Worksheet: Estimate Heart Rate Using R-R Wave Method Worksheet: Estimate Heart Rate Using 6-Second Method Worksheet: Determine Heart Rate Using 1500 Method		20-31; 49-55

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Chapter 4 PERFORMING AN ECG

Learning Outcome		PowerPoint	Instructor's Manual	Test Bank Questions				Chapter Review			
		Slides	Pages	All Questions	Bloom's			Chapter Review (questions)	Critical Thinking Application (questions)	Check Point (questions)	"Competency Checklists (procedures)
					Remember	Understand	Apply				
Chapter 04		1-66	1-12	1-55				1-55			
LO 4.1	Carry out preparation of the patient, room, and equipment for an ECG.	4-9	1; 5; 8	1-2; 39	1-2		39	19		1-2	
LO 4.2	Describe the communication needed during the ECG procedure, including the actions to take if a patient refuses to allow an ECG to be performed.	10-15	1; 5; 8	3-5; 19		5	3-4; 19	15		1-2	
LO 4.3	Identify at least three ways to provide for safety during the ECG procedure.	16-19	1; 5; 8	18; 51-53	6-7; 9; 40	18; 51-52	53	18		1-2	
LO 4.4	Demonstrate the procedure for applying the electrodes and lead wires for a 12-lead ECG and cardiac monitor.	20-32	1; 5-6; 8-10	6-17; 36	6-7; 9; 36	10; 13-14	8; 11-12; 15-17	1-14; 16-17; 20; 28; 31-35; 37; 40; 45; 47-49		1-4	
LO 4.5	Describe the procedure for recording a 12-lead ECG.	33-36	1-2; 6; 8	10; 37; 40	37	20; 40		24; 31		1-2	
LO 4.6	Identify the types of artifact and how to prevent or correct them.	37-44	1-2; 6; 8-10	21-26; 41	21-22; 24		23; 25-26; 41	21-23; 25-27; 32; 38; 43-44	51	1-2	
LO 4.7	Describe how to report the ECG results.	45-48	1-2; 6; 10	27; 42-43; 57	43	27; 42; 57			53	1-2	
LO 4.8	Identify the steps for cleaning and caring for the ECG equipment.	49-51	1-2; 7	28; 44-45		28; 44-45				1	
LO 4.9	Explain variations for a pediatric ECG procedure.	52-55	1-2; 7-8	29-31; 54	31	29-30	54	30		1-2	
LO 4.10	Distinguish between a routine ECG and cardiac monitoring.	56-59	1-2; 7-10	32; 38; 55	38	55		29; 33; 46	50	1	
LO 4.11	Summarize special patient circumstances when performing an ECG.	60-66	1-2; 7; 9-10	33-34; 46-49	47; 49	33-34; 46; 48		36; 39	52	1-2	
LO 4.12	Recall the steps for handling an emergency during an ECG.	67-71	1-2; 7	35; 50; 56	35		50; 56		50; 56	1	

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"SmartBook/ LearnSmart"	Video Evaluations	Questions	Interactives	Interactives	Questions
		51 questions		7 interactives	55 questions
LO 4.1		20; 37	Paragraph: Preparation for the ECG Procedure		18; 51-53
LO 4.2		21-23; 35	Paragraph: Communication with the Patient		6-17; 36
LO 4.3		36; 51			10; 37; 40
LO 4.4		24-27; 34; 38; 45	Matching I: Match the Landmarks with Their Locations Matching I: Match the Leads to Their Correct Placements Matching II: Key Terms Labeling: Identify Leads and Their Descriptions Labeling: Identifying Anatomical Landmarks Paragraph: Identifying Anatomical Landmarks Sequencing: Applying the Electrodes and Leads Paragraph: Applying the Electrodes and Leads	Anatomic Landmarks [Version a] Anatomic Landmarks [Version b] Anatomic Landmarks [Version c] Adult Lead Placement	21-26; 41
LO 4.5	Obtaining an ECG	41	Drag and Drop: Drag Terms for Sentence Completion	Performing an ECG	27; 42-43; 57
LO 4.6		29; 39-40; 42-44; 49			28; 44-45
LO 4.7		50	Paragraph: Reporting ECG Results		29-31; 54
LO 4.8			Paragraph: Equipment Maintenance		32; 38; 55
LO 4.9		30-31; 47	Paragraph: Pediatric ECG		33-34; 46-49
LO 4.10			Paragraph: Cardiac Monitoring	Pediatric Chest Lead Placement	35; 50; 56
LO 4.11		32; 46	Paragraph: Special Patient Considerations	Right-Side Chest Lead Placement	
LO 4.12		33; 48	Paragraph: Handling Emergencies		20-31; 49-55

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Chapter 5 RHYTHM STRIP INTERPRETATION AND SINUS RHYTHMS

Learning Outcome		PowerPoint	Instructor's Manual	Test Bank Questions				Chapter Review			
		Slides	Pages	All Questions	Bloom's			Chapter Review (questions)	Critical Thinking Application (questions)	Check Point (questions)	"Competency Checklists (procedures)
					Remember	Understand	Apply				
Chapter 05		1-68	1-8	1-55				1-36			
LO 5.1	Explain the process of evaluating ECG tracings and determining the presence of dysrhythmias.	4-6	1; 4	1; 37		1; 37				1	4-1 Recording an Electrocardiogram 4-2 Continuous Cardiac Monitoring
LO 5.2	Describe the criteria used to classify dysrhythmias, including rhythm, rate, P wave morphology, PR interval measurement, and QRS duration measurement.	7-21	1-2; 4; 6	2-9; 33-34; 36; 38; 49; 55	36	2-9; 33-34; 38; 55	49	1; 5; 8; 12; 15-16		1-3	4-1 Recording an Electrocardiogram 4-2 Continuous Cardiac Monitoring
LO 5.3	Analyze normal sinus rhythm and its effect on the patient, including basic patient care and treatment.	22-30	1-2; 4; 6-8	10-11; 14-15; 18; 35; 39; 41	10-11; 14-15; 18; 35		39; 41	2; 10; 17; 21	24-36	1	
LO 5.4	Analyze sinus bradycardia and its effect on the patient, including basic patient care and treatment.	31-38	1-2; 4; 6-8	12-13; 16; 32; 40; 47	12-13; 16; 32	47	40	6; 11; 22	24-36	1	4-1 Recording an Electrocardiogram 4-2 Continuous Cardiac Monitoring
LO 5.5	Analyze sinus tachycardia and its effect on the patient, and explain how the rhythm may affect the patient, including basic patient care and treatment.	39-45	1-2; 4; 6-8	17; 19-21; 42; 46	17; 19-21	46	42	13; 19; 22	24-36	1	4-1 Recording an Electrocardiogram 4-2 Continuous Cardiac Monitoring
LO 5.6	Analyze sinus dysrhythmia and its effect on the patient, including basic patient care and treatment.	46-57	1-2; 5-8	22-25; 44-45; 48	22-25	48	44-45	3-4; 7; 9; 14; 23	24-36	1	4-1 Recording an Electrocardiogram 4-2 Continuous Cardiac Monitoring
LO 5.7	Analyze sinus arrest and its effect on the patient, including basic patient care and treatment.	52-58	1-2; 5-8	26-31; 43; 50	26; 28-31	27; 50	43	20	24-36	1	4-1 Recording an Electrocardiogram 4-2 Continuous Cardiac Monitoring
LO 5.8	Analyze sinus exit block and its effect on the patient, including basic patient care and treatment.	59-65	1-2; 5-8	51-54	51; 54	52; 53		18			

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"SmartBook/ LearnSmart"	Video Evaluations	Questions	Interactives	Interactives	Questions
		41 questions		5 interactives	55 questions
LO 5.1		8	Matching: Key Term Matching		1; 37
LO 5.2		9; 22; 25-26; 32-39		Parts of an ECG Tracing ECG Rhythm Identification	2-9; 33-34; 36; 38; 49; 55
LO 5.3		10-11; 20; 29; 31	Classification: Symptoms of Decreased Cardiac Output Paragraph: Normal Sinus Rhythm	Sinus Rhythms [Version a] Sinus Rhythms [Version b] Sinus Rhythms [Version c]	10-11; 14-15; 18; 35; 39; 41
LO 5.4		12-13; 21; 30	Paragraph: Sinus Bradycardia		12-13; 16; 32; 40; 47
LO 5.5		14-15; 23; 27	Paragraph: Sinus Tachycardia		17; 19-21; 42; 46
LO 5.6		16-17; 24	Paragraph: Sinus Dysrhythmia		22-25; 44-45; 48
LO 5.7		18-19; 28	Paragraph: Sinus Arrest		26-31; 43; 50
LO 5.8		40-41			51-54

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Chapter 6 ATRIAL DYSRHYTHMIAS

Learning Outcome		PowerPoint	Instructor's Manual	Test Bank Questions				Chapter Review			
		Slides	Pages	All Questions	Bloom's			Chapter Review (questions)	Critical Thinking Application (questions)	Check Point (questions)	"Competency Checklists (procedures)
					Remember	Understand	Apply				
Chapter 06		1-42	1-7	1-52				1-55			
LO 6.1	Summarize the similarities and differences among atrial dysrhythmias.	5-6	1; 2; 4-5	1-2; 46-47	47	1-2; 46		1; 4; 20; 23		1	
LO 6.2	Analyze premature atrial complexes and their effect on the patient, including basic patient care and treatment.	7-14	1; 2; 4-7	3-6; 32-33-35; 45	4-6; 33; 35; 45	3; 32		2-3; 7; 9; 19	27-37	1	
LO 6.3	Analyze wandering atrial pacemaker and its effect on the patient, including basic patient care and treatment.	15-19	1; 2; 4-7	7-9; 11; 36; 44; 48-49; 52	7-9; 11; 36; 44	48-49	52	13; 18; 26	27-37	1	
LO 6.4	Analyze multifocal and its effect on the patient, including basic patient care and treatment.	20-25	1; 2; 4-7	10; 12-15; 37; 51	10; 12-15; 37		51	14; 21; 26	27-37	1	
LO 6.5	Analyze atrial flutter and its effect on the patient, including basic patient care and treatment.	26-33	1; 2; 4-7	16-21; 31; 34; 38; 43	16-21; 31; 34; 38	43		5-6; 16; 22; 24	27-37	1	
LO 6.6	Analyze atrial fibrillation and its effect on the patient, including basic patient care and treatment.	34-40	1; 3; 4-7	22-30; 39-42; 50	22-28; 30; 39-42	29	50	8; 10-12; 15; 17; 25	27-37	1	

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SmartBook/LearnSmart		Question Bank		Strip Exercises	Test Bank
"SmartBook/ LearnSmart"	Video Evaluations	Questions	Interactives	Interactives	Questions
		35 questions		3 interactives	52 questions
LO 6.1		9-10	Paragraph: Introduction to Atrial Dysrhythmias		1-2; 46-47
LO 6.2		11-12; 19; 21; 25	Paragraph: Premature Atrial Complexes (PACs)	Atrial Rhythms [Version a] Atrial Rhythms [Version b] Atrial Rhythms [Version c]	3-6; 32-33-35; 45
LO 6.3		13-14; 24	Paragraph: Wandering Atrial Pacemaker (WAP) Classification: Wandering Atrial Pacemaker (WAP)		7-9; 11; 36; 44; 48-49; 52
LO 6.4		15-16	Paragraph: Multifocal Atrial Tachycardia (MAT)		10; 12-15; 37; 51
LO 6.5		17-18; 20; 22; 26; 30-31	Matching: Key Term Matching Paragraph: Atrial Flutter		16-21; 31; 34; 38; 43
LO 6.6		23; 27-29; 32-35	Paragraph: Atrial Fibrillation		22-30; 39-42; 50

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Chapter 7 JUNCTIONAL DYSRHYTHMIAS

Learning Outcome		PowerPoint	Instructor's Manual	Test Bank Questions				Chapter Review			
		Slides	Pages	All Questions	Bloom's			Chapter Review (questions)	Critical Thinking Application (questions)	Check Point (questions)	"Competency Checklists (procedures)
					Remember	Understand	Apply				
Chapter 07		1-44	1-8	1-51				1-22			
LO 7.1	Describe the various junctional dysrhythmias.	3-8	1; 4-5	1-5; 37; 45; 46	5; 45	1-4; 37; 46		1; 10		1	
LO 7.2	Analyze premature junctional complexes and their effect on the patient, including basic patient care and treatment.	9-15	1; 4-8	6-8; 29-30; 39; 49-50	6-7; 29-30; 50	8	39; 49	7	11-22	1	
LO 7.3	Analyze junctional escape rhythm and its effect on the patient, including basic patient care and treatment.	16-22	1; 4-8	9-12; 32; 38; 40	32; 38	9-12	40	8	11-22	1-2	
LO 7.4	Analyze accelerated junctional rhythm and its effect on the patient, including basic patient care and treatment.	23-28	1; 4-8	13-15; 41; 43-44		13-15	41; 43-44	9	11-22	1	
LO 7.5	Analyze junctional tachycardia and its effect on the patient, including basic patient care and treatment.	29-34	1; 4-8	16-20; 33-34; 42	16-17	18-20; 34	33; 42		11-22	1	
LO 7.6	Analyze supraventricular tachycardia and its effect on the patient, including basic patient care and treatment.	35-42	1-2; 5-8	21-28; 31; 35-36; 47-48; 51	23; 25; 28; 31; 51	21-22; 24; 26-27; 35-36; 47-48	50	2-6	11-22	1-5	

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SmartBook/LearnSmart		Question Bank		Strip Exercises	Test Bank
"SmartBook/ LearnSmart"	Video Evaluations	Questions	Interactives	Interactives	Questions
		28 questions		3 interactives	51 questions
LO 7.1		1; 8-9	Paragraph: Introduction to Junctional Dysrhythmias		1-5; 37; 45; 46
LO 7.2		10; 17; 24; 27	Paragraph: Premature Junctional Complex	Junctional Dysrhythmias [Version a] Junctional Dysrhythmias [Version c]	6-8; 29-30; 39; 49-50
LO 7.3		11; 18-19; 22; 25-26	Paragraph: Junctional Escape Rhythm	Junctional Dysrhythmias [Version a] Junctional Dysrhythmias [Version b] Junctional Dysrhythmias [Version c]	9-12; 32; 38; 40
LO 7.4		12-13; 20	Paragraph: Accelerated Junctional Rhythm		13-15; 41; 43-44
LO 7.5		21	Paragraph: Junctional Tachycardia Rhythm	Junctional Dysrhythmias [Version b]	16-20; 33-34; 42
LO 7.6		14-16; 23; 28	Paragraph: Supraventricular Tachycardia		21-28; 31; 35-36; 47-48; 51

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Chapter 8 HEART BLOCK DYSRHYTHMIAS

Learning Outcome		PowerPoint	Instructor's Manual	Test Bank Questions				Chapter Review			
		Slides	Pages	All Questions	Bloom's			Chapter Review (questions)	Critical Thinking Application (questions)	Check Point (questions)	"Competency Checklists (procedures)
					Remember	Understand	Apply				
Chapter 08		1-53	1-7	1-50				1-26			
LO 8.1	Describe the various heart block dysrhythmias.	4-6	1; 4	1; 41	41	1				1	
LO 8.2	Analyze first degree atrioventricular (AV) block and its effect on the patient, including basic patient care and treatment.	7-16	1; 4-7	2-8; 35; 38-39; 42	2-5; 7-8; 35; 42	38-39	6	1; 5; 7; 9; 11	14-26	1	
LO 8.3	Analyze second degree atrioventricular (AV) block, Mobitz I, and its effect on the patient, including basic patient care and treatment.	17-27	1; 4-7	9-17; 40; 45; 48	9-16	40; 45	17; 48	2; 5; 8; 11-12	14-26	1	
LO 8.4	Analyze second degree atrioventricular (AV) block, Mobitz II, and its effect on the patient, including basic patient care and treatment.	28-35	1; 4-7	18-26; 43-44; 47	18-26; 47	43	44	3; 5; 8; 10-12	14-26	1	
LO 8.5	Analyze third degree atrioventricular (AV) block and its effect on the patient, including basic patient care and treatment.	36-45	1-2; 4-7	27-34; 36-37; 46; 49-50	27-31; 34; 36-37	49-50	32-33; 46	4; 5-6; 8; 11; 13	14-26	1	

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SmartBook/LearnSmart		Question Bank		Strip Exercises	Test Bank
"SmartBook/ LearnSmart"	Video Evaluations	Questions	Interactives	Interactives	Questions
		40 questions		3 interactives	50 questions
LO 8.1			Paragraph: Introduction to Heart Block Dysrhythmias		1; 41
LO 8.2		7-8; 13; 17; 19; 21-22; 25; 30; 35; 38	Paragraph: First Degree Atrioventricular (AV) Block	"Heart Block Dysrhythmias [Version a] Heart Block Dysrhythmias [Version b] Heart Block Dysrhythmias [Version c]"	2-8; 35; 38-39; 42
LO 8.3		9-10; 14; 20; 23; 26; 29; 33; 36; 39	Classification: Second Degree Atrioventricular (AV) Block Paragraph: Second Degree Atrioventricular (AV) Block		9-17; 40; 45; 48
LO 8.4		11; 15; 27; 37; 40	Paragraph: Second Degree Atrioventricular (AV) Block		18-26; 43-44; 47
LO 8.5		12; 16; 18; 24; 28; 31-32; 34	Paragraph: Second Degree Atrioventricular (AV) Block		27-34; 36-37; 46; 49-50

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Chapter 9 VENTRICULAR DYSRHYTHMIAS

Learning Outcome		PowerPoint	Instructor's Manual	Test Bank Questions				Chapter Review			
		Slides	Pages	All Questions	Bloom's			Chapter Review (questions)	Critical Thinking Application (questions)	Check Point (questions)	"Competency Checklists (procedures)
					Remember	Understand	Apply				
Chapter 09		1-66	1-10	1-50				1-43			
LO 9.1	Analyze premature ventricular complexes (PVCs) and their effect on the patient, including basic patient care and treatment.	4-7	1; 4-6	1-6		1-6		5; 6; 12-22		1	
LO 9.2	Analyze agonal rhythm and its effect on the patient, including basic patient care and treatment.	8-27	1; 4-10	7-16; 47; 49	7-16; 47		49	1; 8; 12-22	23-43	1	
LO 9.3	Analyze idioventricular rhythm and its effect on the patient, including basic patient care and treatment.	28-33	1; 4-10	17-19; 33	17-18; 33		19	1; 3	23-43	1	
LO 9.4	Analyze accelerated idioventricular rhythm and its effect on the patient, including basic patient care and treatment.	34-39	1; 4-10	20; 39-41; 50	20; 39-40	50	41	1; 4; 9	23-43	1	
LO 9.5	Analyze ventricular tachycardia and its effect on the patient, including basic patient care and treatment.	40-45	1-2; 5-10	21-23; 42-43	21-22; 42	43	23	1-2; 9	23-43	1	
LO 9.6	Analyze ventricular fibrillation and its effect on the patient, including basic patient care and treatment.	46-53	1-2; 5-10	24-26; 31 44	24-26; 31	44	25	1; 11	23-43	1	
LO 9.7	Analyze asystole and its effect on the patient, including basic patient care and treatment.	54-58	1-2; 5-10	27-31; 36-38	27-31; 36-38			1; 7; 11	23-43	1	
LO 9.8	Analyze sinus exit block and its effect on the patient, including basic patient care and treatment.	59-64	1-2; 5-10	32-35; 45-46; 48	32-35; 46; 48		45	1; 10	23-43	1	

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SmartBook/LearnSmart		Question Bank		Strip Exercises	Test Bank
"SmartBook/ LearnSmart"	Video Evaluations	Questions	Interactives	Interactives	Questions
		42 questions		9 interactives	50 questions
LO 9.1		11; 18	Paragraph: Introduction to Ventricular Dysrhythmias		1-6
LO 9.2		12; 19; 24; 30; 32-36; 40	Matching: Type and Pattern of Premature Complexes Classification - Premature Ventricular Complexes Paragraph - Premature Ventricular Complexes	Premature Ventricular Complexes - Part 1 [Version a] Premature Ventricular Complexes - Part 1 [Version b] Premature Ventricular Complexes - Part 1 [Version c] Premature Ventricular Complexes - Part 2 [Version a] Premature Ventricular Complexes - Part 2 [Version b] Premature Ventricular Complexes - Part 2 [Version c]	7-16; 47; 49
LO 9.3		13; 17; 21; 23; 29	Paragraph: Agonal Rhythm		17-19; 33
LO 9.4		15; 20; 31	Paragraph: Idioventricular Rhythm	Ventricular Dysrhythmias [Version a] Ventricular Dysrhythmias [Version b] Ventricular Dysrhythmias [Version c]	20; 39-41; 50
LO 9.5		14; 16; 38	Paragraph: Accelerated Idioventricular Rhythm	Ventricular Dysrhythmias [Version a] Ventricular Dysrhythmias [Version b] Ventricular Dysrhythmias [Version c]	21-23; 42-43
LO 9.6		22; 25; 28; 37; 42	Paragraph: Ventricular Tachycardia		24-26; 31 44
LO 9.7		26; 41	Paragraph: Ventricular Fibrillation		27-31; 36-38
LO 9.8		27	Paragraph: Asystole		32-35; 45-46; 48

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Chapter 10 BUNDLE BRANCH BLOCK

Learning Outcome		PowerPoint	Instructor's Manual	Test Bank Questions				Chapter Review			
		Slides	Pages	All Questions	Bloom's			Chapter Review (questions)	Critical Thinking Application (questions)	Check Point (questions)	"Competency Checklists (procedures)
					Remember	Understand	Apply				
Chapter 10		1-34	1-7	1-23				1-28			
10.1	Analyze bundle branch block and its effect on the patient, including basic patient care and treatment.	3-13	1; 4-7	1-14	1-10; 13	14	11-12	2; 4-11	22-28	1-3	
10.2	Differentiate between left and right bundle branch blocks and how they relate to the 12-lead ECG.	14-19	1; 4-5	15-18		15-18		1; 3; 12-21		1	

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SmartBook/LearnSmart		Question Bank		Strip Exercises	Test Bank
"SmartBook/ LearnSmart"	Video Evaluations	Questions	Interactives	Interactives	Questions
		14 questions		4 interactives	23 questions
LO 10.1		3-4; 6; 14	Paragraph: Introduction to Bundle Branch Block Sequencing: Introduction to Bundle Branch Block		1-14
LO 10.2		5; 7; 12-13	Paragraph: RBBB vs. LBBB Paragraph: Bundle Branch Block - Cause and Effects	Bundle Branch Block	15-18

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Chapter 11 PACEMAKER RHYTHMS

Learning Outcome		PowerPoint	Instructor's Manual	Test Bank Questions				Chapter Review			
		Slides	Pages	All Questions	Bloom's			Chapter Review (questions)	Critical Thinking Application (questions)	Check Point (questions)	"Competency Checklists (procedures)
					Remember	Understand	Apply				
Chapter 11		1-34	1-6	1-38				1-25			
LO 11.1	Identify the various types and functions of pacemakers.	3-12	1; 3-4	1-6; 17-18; 26-27; 35	3; 26	1-2; 4; 6; 17-18; 27	5; 35	8-10		1-3	
LO 11.2	Analyze pacemaker rhythms and their effect on the patient, including basic patient care and treatment.	13-24	1; 3-6	7-10; 16; 19-21; 24; 28; 31; 33-34; 37-38	7-10; 16; 20-21; 24; 37-38	19; 28	31; 33-34	1-5	20-25	1-4	
LO 11.3	Summarize pacemaker complications relative to the ECG tracing.	25-30	1; 3-4	14-17; 39-40	29-30	11-15; 22-23; 25; 36	32	6-7; 11-19		1	

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SmartBook/LearnSmart		Question Bank		Strip Exercises	Test Bank
"SmartBook/ LearnSmart"	Video Evaluations	Questions	Interactives	Interactives	Questions
		16 questions		3 interactives	71 questions
LO 11.1			Labeling: Introduction to Pacemaker Rhythms Paragraph: Introduction to Pacemaker Rhythms	Pacemaker Rhythms [Version a] Pacemaker Rhythms [Version b] Pacemaker Rhythms [Version c]	1-6; 17-18; 26-27; 35
LO 11.2		9-16	Labeling: Evaluating Pacemaker Function Paragraph: Evaluating Pacemaker Function		7-10; 16; 19-21; 24; 28; 31; 33-34; 37-38
LO 11.3		7-8	Matching: Key Term Matching Paragraph: Pacemaker Complications Relative to the ECG Tracing		14-17; 39-40

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Chapter 12 CARDIAC STRESS TESTING

Learning Outcome		PowerPoint	Instructor's Manual	Test Bank Questions				Chapter Review			
		Slides	Pages	All Questions	Bloom's			Chapter Review (questions)	Critical Thinking Application (questions)	Check Point (questions)	"Competency Checklists (procedures)
					Remember	Understand	Apply				
Chapter 12		1-65	1-12	1-53				1-39			
LO 12.1	Describe exercise electrocardiography and identify its other names.	4-9	1; 8; 11	1-7		1-7		30; 35		1-2	
LO 12.2	Identify uses of exercise electrocardiography.	10-15	1; 8; 10	8-13	8-13			17; 21; 25		1	
LO 12.3	Describe other types of cardiac stress testing.	16-21	1; 8-10	14-17; 39-41; 51-52	39-40	14-17; 41; 51-52		3; 16; 20; 23; 26		1	
LO 12.4	Prepare a patient for exercise electrocardiography.	22-31	1; 8; 10-12	18-23; 27	18	19; 22-23; 27	20-21	8-9; 13; 19	36-37; 39	1-2	12-1 Assisting with Exercise Electrocardiography (Stress Testing)
LO 12.5	Summarize safety measures that are used before, during, and after exercise electrocardiography.	32-37	1; 9-10	24-25; 42-44; 50	42-44	24-25; 50		1-2; 5-6; 18; 24		1	12-1 Assisting with Exercise Electrocardiography (Stress Testing)
LO 12.6	Explain the responsibilities of a healthcare professional during exercise electrocardiography.	38-43	1; 9-12	26; 28-30; 48-49	49	26; 28-30; 48		4; 7; 10; 14-15	37	1	12-1 Assisting with Exercise Electrocardiography (Stress Testing)
LO 12.7	Compare common protocols followed in exercise electrocardiography.	44-54	1; 9-11	31-34; 37-38		31-34; 37	38	22; 28; 31-33		1-2	12-1 Assisting with Exercise Electrocardiography (Stress Testing)
LO 12.8	Explain the responsibilities of a healthcare professional after exercise electrocardiography.	55-62	1; 9-12	35-36; 45-47; 53		35-36; 46-47; 53	45	11-12; 27; 34	38	1	12-1 Assisting with Exercise Electrocardiography (Stress Testing)

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SmartBook/LearnSmart		Question Bank		Strip Exercises	Test Bank
"SmartBook/ LearnSmart"	Video Evaluations	Questions	Interactives	Interactives	Questions
		27 questions		1 interactives	53 questions
LO 12.1			Paragraph: What is Exercise Electrocardiography?		1-7
LO 12.2		11-12	"Matching I: Key Term Matching		8-13
LO 12.3		18	Matching II: Key Term Matching		14-17; 39-41; 51-52
LO 12.4		13; 23-24; 27	Paragraph: Why is Exercise Electrocardiography Used?"		18-23; 27
LO 12.5		17; 20-21	Labeling: Lead Placement Paragraph: Performing Exercise Electrocardiography		24-25; 42-44; 50
LO 12.6		14; 19; 22; 25	Paragraph: Preparing the Patient for Exercise Electrocardiography	Assisting with Exercise Electrocardiography	26; 28-30; 48-49
LO 12.7		15-16; 26	Paragraph: Common Protocols		31-34; 37-38
LO 12.8		27	Paragraph: After Exercise Electrocardiography		35-36; 45-47; 53

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Chapter 13 AMBULATORY MONITORING

Learning Outcome		PowerPoint	Instructor's Manual	Test Bank Questions				Chapter Review			
		Slides	Pages	All Questions	Bloom's			Chapter Review (questions)	Critical Thinking Application (questions)	Check Point (questions)	"Competency Checklists (procedures)
					Remember	Understand	Apply				
Chapter 13		1-60	1-13	1-51				1-39			
LO 13.1	Identify the purpose and function of ambulatory monitoring.	4-9	1; 9; 11	1-4; 43	1-4; 43			14; 16; 19		1	
LO 13.2	Explain why ambulatory monitoring is used in addition to the 12-lead ECG.	10-14	1; 9; 11	5-8; 13; 44-45	44-45	5-8	13	15; 18; 22		1	
LO 13.3	Summarize the common types of ambulatory monitoring.	15-25	1; 9; 11	9-12; 14-16; 46-48	46-48	9-12; 14-16		17; 20-21; 28-29; 31-32		1	
LO 13.4	Educate the patient about ambulatory monitoring.	26-34	1; 9; 11-12	17-22; 39		17-22; 39		23-27; 30	38	1	
LO 13.5	Prepare a patient for application of an ambulatory monitor.	35-38	1; 10	23-25; 38; 42		38	23-25; 42			1	
LO 13.6	Describe the procedure for applying an ambulatory monitor correctly.	39-47	1; 10; 12	26-31; 40-41		26-31; 40-41		1-13	36	1	
LO 13.7	Describe the procedure for removing the ambulatory monitor and reporting the results.	48-54	1; 10-13	32-38; 49-51		32-38; 49-51		33-35	37; 39	1	

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SmartBook/LearnSmart		Question Bank		Strip Exercises	Test Bank
"SmartBook/ LearnSmart"	Video Evaluations	Questions	Interactives	Interactives	Questions
		24 questions		1 interactives	51 questions
LO 13.1		10	Matching: Key Term Matching Paragraph: What is Ambulatory Monitoring		1-11
LO 13.2		12			12-18
LO 13.3		13; 16-17; 19-20	Paragraph: How is Ambulatory Monitoring Used? Paragraph: Types of Ambulatory Monitoring		19-26; 41
LO 13.4		18; 23	Paragraph: Educating the Patient		27-31; 42-44
LO 13.5			Paragraph: Preparing the Patient		32-36; 45-46
LO 13.6		21	Ordering: Applying an Ambulatory Monitor Paragraph: Applying an Ambulatory Monitor	Applying and Removing an Ambulatory (Holter) Monitor	37-38; 51-54; 61-64
LO 13.7		11; 14-15; 22; 24	Paragraph: Removing an Ambulatory Monitor		39-40; 47-50; 55-59; 65-66

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Chapter 14 CLINICAL PRESENTATION AND MANAGEMENT OF THE CARDIAC PATIENT

Learning Outcome		PowerPoint	Instructor's Manual	Test Bank Questions				Chapter Review			
		Slides	Pages	All Questions	Bloom's			Chapter Review (questions)	Critical Thinking Application (questions)	Check Point (questions)	"Competency Checklists (procedures)
					Remember	Understand	Apply				
Chapter 14		1-66	1-7	1-66				1-32			
LO 14.1	Describe the structure and location of arteries, including the coronary arteries.	4-9	1; 4; 6-7	1-11	1-11			8-10	31	1	
LO 14.2	Describe typical cardiac symptoms and unstable angina.	10-16	1; 4-7	12-18		12-18		1-2; 11-12	30; 32	1	
LO 14.3	Summarize atypical patient types and presentation.	17-23	1; 4; 6-7	19-26; 41		19-26; 41		13-15	30	1-2	
LO 14.4	Compare ST segment elevation and non-ST segment elevation.	24-29	1; 4; 6	27-31; 42-44	42-44	27-31		3; 16-17		1	
LO 14.5	Explain heart failure.	30-38	1; 4-6	32-36; 45-46		32-36; 45-46		5; 18-19		1-2	
LO 14.6	Identify assessment and immediate treatment needed for the cardiac patient.	39-46	1; 5-7	37-38; 51-54; 61-64	37-38; 53-54	61-63	51-52	4; 7; 20-23; 26-27	30-32	1-2	
LO 14.7	Discuss treatment modalities for the cardiac patient.	47-58	1; 5-7	39-40; 47-50; 55-59; 65-66	55	39-40; 47; 49; 57-59; 65-66	48; 50; 56	6; 24-25; 28-29		1-2	

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SmartBook/LearnSmart		Question Bank		Strip Exercises	Test Bank
"SmartBook/ LearnSmart"	Video Evaluations	Questions	Interactives	Interactives	Questions
		52 questions		3 interactives	51 questions
LO 14.1		9; 17; 21-22; 39; 40-41	Paragraph: Sentences Dealing with Arteries Animation: Left-Sided Heart Failure Drag and Drop I: Drag Terms for Sentence Completion		1-5; 37; 45; 46
LO 14.2			Paragraph: Sentences Dealing with Cardiac Symptoms	Junctional Dysrhythmias [Version a] Junctional Dysrhythmias [Version c]	6-8; 29-30; 39; 49-50
LO 14.3		10-11; 42	Paragraph: Sentences Dealing with a Typical Paper Presentation Drag and Drop III: Drag Terms for Sentence Completion	Junctional Dysrhythmias [Version a] Junctional Dysrhythmias [Version b] Junctional Dysrhythmias [Version c]	9-12; 32; 38; 40
LO 14.4		12-13; 43-45	Drag and Drop II: Drag Terms for Sentence Completion Drag and Drop IV: Drag Terms for Sentence Completion		13-15; 41; 43-44
LO 14.5	Heart Failure Overview Left Ventricular Failure Right Ventricular Failure	14; 16; 18-19; 23-25; 29-34; 36-38; 46-47	Paragraph: Sentences Dealing with Heart Failure Animation: Left-Sided Heart Failure Animation: Right-Sided Heart Failure Drag and Drop V: Drag Terms for Sentence Completion	Junctional Dysrhythmias [Version b]	16-20; 33-34; 42
LO 14.6		15; 27-28; 48-52	Drag and Drop VI: Drag Terms for Sentence Completion Drag and Drop VII: Drag Terms for Sentence Completion Paragraph: Sentences Dealing with Treatment of Cardiac Patients		
LO 14.7		14-16; 23; 28	Paragraph: Supraventricular Tachycardia		21-28; 31; 35-36; 47-48; 51

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Chapter 15 BASIC 12-LEAD ECG INTERPRETATION

Learning Outcome		PowerPoint	Instructor's Manual	Test Bank Questions				Chapter Review			
		Slides	Pages	All Questions	Bloom's			Chapter Review (questions)	Critical Thinking Application (questions)	Check Point (questions)	"Competency Checklists (procedures)
					Remember	Understand	Apply				
Chapter 15		1-47	1-6	1-40				1-38			
LO 15.1	Discuss the anatomical views presented on a 12-lead ECG and the coronary artery that commonly supplies that region of tissue.	3-12	1; 3-4	1-9		1-9		9; 10-17		1	
LO 15.2	Identify common morphologic changes associated with ischemia, injury, and infarction.	13-22	1; 3-5	10-19; 39-40	10-19; 49	40		4-6; 18-20; 28-29	31-34	1-5	
LO 15.3	Define axis deviation and the steps utilized to determine the presence of axis deviation.	23-30	1; 3-4	20-29; 34		20-29; 34		1-2; 7-8; 21-25	35-37	1-3	
LO 15.4	Describe left ventricular hypertrophy (LVH) and the steps to determine the presences of LVH.	31-39	1; 4-5	30-33; 35-38	35	30-33; 36; 38	37	3; 26-27; 30	38	1	

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SmartBook/LearnSmart		Question Bank		Strip Exercises	Test Bank
"SmartBook/ LearnSmart"	Video Evaluations	Questions	Interactives	Interactives	Questions
		38 questions		8 interactives	40 questions
LO 15.1		14-17	Classification: The Views of a Standard 12-Lead ECG and Major Vessels Paragraph: The Views of a Standard 12-Lead ECG and Major Vessels	Views from ECG Leads Coronary Circulation	1-9
LO 15.2		9-10; 18-21; 26-32	Matching: Key Term Matching Labeling: Ischemia, Injury, and Infarction Paragraph: Ischemia, Injury, and Infarction	Infarction Locations [Version a] Infarction Locations [Version b] Infarction Locations [Version c]	10-19; 39-40
LO 15.3		11-12; 22-25; 33-35	Paragraph: Electrical Axis	Axis Deviation [Version a] Axis Deviation [Version b] Axis Deviation [Version c]	20-29; 34
LO 15.4		8; 13; 36-38	Paragraph: Left Ventricular Hypertrophy		30-33; 35-38

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